

ELR DIVISION STAKEHOLDER CONSULTATION STRATEGIC PLANNING WORKSHOP

DISCUSSION PAPER

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1. Background

- 1.1. The National Energy Regulator of South Africa (NERSA) is a regulatory authority established as a juristic person in terms of Section 3 of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). NERSA's mandate is to regulate the electricity, piped-gas and petroleum pipelines industries in terms of the Electricity Regulation Act, 2006 (Act No. 4 of 2006), Gas Act, 2001 (Act No. 48 of 2001) and Petroleum Pipelines Act, 2003 (Act No. 60 of 2003).
- 1.2. NERSA is expected to implement its mandate and to proactively take necessary regulatory actions in anticipation of and in response to the changing circumstances in the energy industry. All operational activities and processes come under scrutiny during the planning period, to ensure that NERSA is positioned to carry out its mandate effectively.
- 1.3. In 2019, the Department of Planning, Monitoring and Evaluation published the *Revised Framework for Strategic Plans and Annual Performance Plans* (Framework), detailing the requirements for Strategic Plans and Annual Performance Plans. According to Instruction Note 5 of 2019/20 of National Treasury, Schedule 3A public entities have to comply with the requirements of this Framework with effect from 15 November 2019. According to the Public Finance Management Act, 1999 (Act No. 1 of 1999), NERSA is a schedule 3A public entity.
- 1.4. In terms of the Framework an approved strategic plan can only be amended when "changes in policy, service delivery environment and planning methodology result in the revision of the vision, mission, values and impact statement, outcomes, outcome indicators or targets". It is in this context that the NERSA's Electricity Division is engaging in an environmental scanning exercise to provide strategic direction which will inform and guide the activities across all departments within the Electricity Division.

2. Context

- 2.1. The main focus of the 2021 Electricity Division strategic planning will therefore be the following:
 - 2.1.1. A Strategic Assessment of the Electricity Supply Industry and the broader electricity sector.
 - 2.1.2. Identification of strategic themes, objectives and priorities that will frame the Electricity Division response to the challenges facing the electricity sector and in definition of a desired end-state.

- 2.2. The Strategic planning is cognisant of the many challenges that need to be addressed to reverse the rolling crisis that has beset the electricity sector since 2008, culminating in, inter alia, persistent load shedding, allegations of unbridled corruption at Eskom, sunk cost investments on both the demand and supply side that risk stranded assets if the decline in the sector is not arrested, as well as the impending structural changes within the utility. In addressing these challenges NERSA is implementing an integrated diagnostic exercise that will inform revisions to the electricity sector regulatory framework as well as NERSA's electricity divisional strategy, taking into account supply and demand side fundamentals, which include:
- 2.2.1. The dynamics of access to power and the interplay of affordability with competitiveness across various demand side segments, ranging from industrial energy intensive users, through electricity dependent manufacturing to households;
 - 2.2.2. The critical imperatives of energy security and the urgent need to stabilise the electricity supply industry whilst enforcing a transparent emphasis on prudent cost to serve within the broader ambit of cost reflective tariffs. It is also essential to ensure that electricity investors receive a reasonable return on their investments, commensurate with the risks; and
 - 2.2.3. A full appreciation and understanding of the energy supply's demand driven nature, in recognition of impact of energy, both availability and price, on the economy and in recognition of the fact that energy impacts and is impacted by the various economic sectors.
- 2.3. At the heart of the diagnostic, is the urgent need to understand the role and impact of the electricity sector in the deindustrialisation of the South African economy over the past decade and how to address this within the South African Industrial policy framework and broader development vision – in the context of paragraph 2.2.3, recognising energy has a derived demand. It is in this context that stakeholders are invited to respond to a number of questions to provide insights into the issues facing NERSA, the options to resolve those issues and how NERSA can organise itself to give effect to these options.

3. Stakeholder Consultation

- 3.1. NERSA has drafted questions for consideration to assist in the determination of the core areas of focus for regulatory and other activities over the short to medium term. Stakeholders are requested to submit written responses by the 20 March 2021 and at the public consultation workshop will also be given an opportunity to make oral presentations of a maximum of 30 minutes *per stakeholder entity*.
- 3.2. Accordingly, stakeholders are requested to respond to the following core areas with specific reference to the demand segment they represent:

- 3.2.1. What in, your view, are the key changes facing the electricity supply industry¹ (ESI)?
 - 3.2.2. What does or should the electricity supply industry end-state look like? What risks can be identified and must be mitigated against as the ESI transitions into this ESI end-state.
 - 3.2.3. What needs to be fixed in the ESI and how should it be fixed?
 - 3.2.4. What is working well in the electricity sector and why?
 - 3.2.5. How does the South African ESI compare with the Global and Regional electricity supply industries?
 - 3.2.6. How should NERSA respond to or impact on the changes the mentioned above?
 - 3.2.7. On which key functions or objects should NERSA focus on?
- 3.3. Within the framework of the above questions, various demand segments have been identified that requires disaggregation to provide necessary nuances on electricity consumption by service/need on the demand side and the cost to serve from the supply side.
- 3.3.1. The energy intensive demand segments (eg. Mineral beneficiation etc.) are requested to address the questions in paragraph 3.2 from the perspective of the sensitivity to electricity in production and how it impacts operational continuity, profitability and competitiveness. With regard to the use of electricity across the operations, it will be useful to understand the different aspects of their operations (for example in the case of smelters the services could be lighting, material preparation & handling, transportation, separation melting, etc.) and for each service, the electricity consumption, whether the load is continuous (steady state, 24/7) or variable and if variable, the load pattern across a 24-hour period.
 - 3.3.2. The other electricity dependent segments (eg. Agricultural, mining, industrial etc.) are requested to address the questions in paragraph 3.2, considering similar nuances to the energy intensive users (profitability and competitiveness) but also in terms of reliability and quality of supply and the relative importance thereof – especially where electricity is not the primary cost driver. Specific segments characteristics, such as seasonality in agriculture should address how this affects electricity consumption. With regard to the use of electricity across the operations, it will be useful to understand the different aspects of their operations (for example in the case of industrial consumers, the services could be lighting, material preparation & handling, materials transportation, material heating or melting, steam generation, etc.) and for each service, the electricity consumption, whether the load is continuous (steady

¹ It is important to note that the term Electricity Supply Industry does not only focus on the suppliers and producers of electricity but includes the electricity demand sectors.

state, 24/7) or variable and if variable, the load pattern across a 24-hour period.

3.3.3. Tertiary demand segments (services sectors, hospitality etc.) are requested to address similar aspects of electricity demand as primary and secondary segments, however it is important for NERSA to understand the alternatives to electricity and the drivers of choice in substituting electricity with an alternative energy or power supply – eg. diesel gensets, solar etc. With regard to the use of electricity across the operations, it will be useful to understand the different aspects of their operations (for example in the case of hospitality consumers the services could be lighting, lifts, spatial heating/cooling, food preparation, water heating, etc.) and for each service, the electricity consumption, whether the load is continuous (steady state, 24/7) or variable and if variable, the load pattern across a 24-hour period.

3.3.4. Households are requested to emphasise the impacts of accessibility and affordability on living standards as well as alternatives that are available and what the key considerations that impact choices to substitute electricity with other energy solutions and any negative impacts this may have. With regard to the consumption of electricity it will be useful to understand the different needs that are met through electricity (eg. for the residential sector: heating, cooking, space heating/cooling, water heating, lighting, etc.) and for each need, the electricity consumption, whether the load is continuous (steady state, 24/7) or variable and if variable, the load pattern across a 24-hour period. In addition, NERSA would like to understand what technologies (equipment etc.) are used currently and what might be an appropriate alternative technology to meet the need and what would be the key deciding factor to shift to an alternative to electricity.

3.4. On the supply side, electricity generators are requested to address the core questions on the basis of the primary energy source and whether they supply baseload, mid-merit load and peak load and how this influences their responses to paragraph 3.2, as well as the consumption pattern in respect of each demand segment. Furthermore, it will be useful if suppliers can provide input regarding the cost to serve each of the identified services/needs for each demand segment from paragraphs 3.3.1 to 3.3.4, highlighting whether the load to meet to these services is base/mid merit or peaking demand and whether it is supplied from transmission (nominal voltage is above 132 kV)² or distribution (nominal voltage of 132 kV or less)³. In addition, municipalities are requested to comment on the developments in the distribution sector, for example the evolution of the NMD mechanism, electrification investments etc. and the impact this has on security of supply by municipalities.

² Definition corrected from previous version

³ Definition corrected from previous version

3.5. The experience that South Africa is going through is not unique to South Africa, it would be appreciated if global experiences and approaches on both demand and supply sides of the ESI could be shared.

4. Timelines for Consultation

Table 1 depicts the proposed timelines for the stakeholder consultation.

Action	Timeframe
NERSA ELR Division Strategic Planning Programme - start	01 March 2021
Publication of the consultation paper for stakeholder comments.	10 March 2021
Closing date for stakeholder comments	20 March 2021
NERSA staff to consider stakeholder comments	20-24 March 2021
Public Consultation Workshop	24–26 March 2021
NERSA ELR Division Strategic Planning Programme - end	30 May 2021